

# Poliomyelitis

**REPORT IMMEDIATELY**

(Also known as Polio, Polioviral Fever, and Infantile Paralysis)



## Section 1:

## ABOUT THE DISEASE

### A. Etiologic Agent

Polio is caused by poliovirus (genus *Enterovirus*). There are three serotypes of polioviruses that cause poliomyelitis with different degrees of likelihood. Type 1 virus most frequently causes epidemics and is most often isolated from paralytic cases of poliomyelitis. Type 3, and to a lesser degree, type 2 viruses also cause paralysis. Types 2 and 3 viruses are more likely to be associated with vaccine-associated paralytic poliomyelitis (VAPP) than type 1.

### B. Clinical Description

The overwhelming majority of poliovirus infections (95%) are clinically unapparent. Some 4–8% of infected individuals will experience non-specific viral symptoms, such as a low-grade fever, headache, sore throat, nausea, abdominal pain, constipation, diarrhea, and/or vomiting (abortive disease). Some 1–5% of infections will result in aseptic meningitis a few days after the minor illness has resolved. Only 0.1–2% of infections will progress to asymmetric “acute flaccid paralysis,” (AFP) with loss of reflexes in the involved limbs and usually with fever present (paralytic poliomyelitis). Currently in the U.S., the most common cause of AFP is not polio but Guillain-Barré Syndrome.

Thanks to the Global Polio Eradication Program, polio no longer occurs in many parts of the world. In the U.S. today, polio could still occur among unimmunized persons and among members of groups that refuse immunization and travel to countries where polio is still common.

Progression in paralytic poliomyelitis usually occurs within 2–4 days and rarely continues after the fever subsides. Spinal paralysis is typically asymmetric, more severe proximally than distally. Paralysis may compromise respiration and swallowing. After the acute episode, many patients recover at least some muscle function and prognosis for recovery can usually be established within six months after onset of paralytic disease. Between 2–10% of paralytic infections are fatal. Risk factors for paralytic disease include larger inoculum of poliovirus, increasing age, pregnancy, strenuous exercise, tonsillectomy, and intramuscular injections administered while the patient is infected with poliovirus.

Infection with poliovirus results in life-long, serotype-specific immunity. Long-term carrier states are rare and have been reported only in immunodeficient persons.

Up to 25% of persons who contracted paralytic poliomyelitis in childhood have developed “post-polio syndrome” 30–40 years later. This syndrome is characterized by muscle pain, exacerbation of existing weakness, and/or development of new paralysis or weakness. Risk factors for developing this syndrome include: a) increasing time since acute polio infection; b) the presence of permanent residual impairment after recovery of the acute illness; and c) being female.

### C. Vectors and Reservoirs

Humans are the only host.

### D. Modes of Transmission

The principal mode of transmission is from person to person by the fecal-oral route (most predominant) or the oral-oral route. Transmission via oral secretions, such as saliva, is possible and may account for some cases. In rare instances, the virus may be transmitted by contaminated sewage or water. Asymptomatic individuals, especially children, comprise a significant source of infection. No reliable evidence of spread by insects exists. No long-term carrier state is known. In temperate climates, poliovirus infections are most common in the summer and in fall.

### E. Incubation Period

<b>Asymptomatic or Mild Polio</b>	The incubation period is usually 3–6 days.
<b>Paralytic Polio</b>	The incubation period is usually 7–21 days, with a range of 3–35 days.

### F. Period of Communicability or Infectious Period

Communicability of poliovirus is greatest shortly before and after onset of clinical illness, when virus is present in the throat and excreted in high concentration in feces. The virus persists in the throat for approximately one week after onset of illness and is excreted in feces for 4–6 weeks. Rarely, excretion of poliovirus has been found in asymptomatic, immunodeficient persons six or more months after infection. Poliovirus can be found in throat secretions as early as 36 hours and in the feces 72 hours after exposure to infection in both symptomatic and asymptomatic cases.

In recipients of oral (live) polio vaccine (OPV), the virus persists in the throat for 1–2 weeks and is excreted in feces for several weeks, although in rare cases, excretion for more than two months can occur. Immunodeficient patients have excreted vaccine virus for periods of more than ten years.

### G. Epidemiology

Prior to the widespread use of polio vaccine, poliomyelitis occurred worldwide. Polio was epidemic in the U.S. for the first half of the 20<sup>th</sup> century with over 57,000 cases of paralytic disease in 1952. The first inactivated poliovirus vaccine (IPV) was introduced in 1955; monovalent oral poliovirus vaccine (OPV) in 1961; trivalent in 1963; and enhanced inactivated poliovirus vaccine (eIPV) in 1987. After the introduction of vaccination, the reported number of cases of poliomyelitis in the U.S. dropped to <100 in 1965 and <10 in 1973. The last cases of indigenously transmitted wild-type poliovirus in the U.S. were in 1979. The last two outbreaks of poliomyelitis in the U.S. were reported among groups opposed to immunization due to their religious beliefs.

The last case of wild-type polio disease in the Western Hemisphere was detected in Peru in 1991. The Western Hemisphere was declared free from indigenous wild-type poliovirus transmission in 1994. Circulation of wild-type polioviruses has ceased in the U.S., and the risk of contact with imported wild-type polioviruses is decreasing rapidly, paralleled with the success of the ongoing global eradication program of the World Health Organization. In fact, poliovirus may be on the verge of worldwide elimination; only six countries in Africa and Asia remained endemic at the end of 2004, and scattered foci of infection still occur in these areas.

Despite the great achievement in polio eradication in the U.S. and in other parts of the world, we need to remain vigilant of the possibility of importation of wild poliovirus from areas of the world where it is endemic. The importation of wild poliovirus from polio-endemic regions of the world may occur among under-immunized: a) tourists, b) immigrants revisiting their countries of origin, or c) the unimmunized, regardless of travel history.

## H. Bioterrorist Potential

This pathogen is not considered to be of risk for use in bioterrorism.



## Section 2:

# REPORTING CRITERIA AND LABORATORY TESTING

## A. What to Report to the Massachusetts Department of Public Health (MDPH)

Report any of the following:

- ◆ A suspect or confirmed case of polio;
- ◆ Acute onset of flaccid paralysis (AFP), especially in an unvaccinated individual or in a member of a community that refuses immunization (please see clinical case definition under *Additional Information* at the end of this chapter);
- ◆ Neurologic symptoms suggestive of polio infection in a recipient or contact of a recipient of OPV;
- ◆ Isolation of poliovirus from an individual, whether or not that individual is believed to have been exposed to poliovirus or to have received OPV; or
- ◆ Significant rise in anti-poliovirus antibody titers comparing acute and convalescent serum specimens.

## B. Laboratory Testing Services Available

If polio is suspected, please contact the MDPH Division of Epidemiology and Immunization immediately (at any time of day or night) at (617) 983-6800 or (888) 658-2850 for guidance about the proper collection and submission of clinical specimens.

### *Virus Isolation*

Stool, throat, and cerebrospinal fluid (CSF) clinical specimens should be collected. A stool specimen is the most likely source from which to isolate poliovirus. A throat specimen, followed by CSF, are the next likeliest sources for virus isolation. Isolation of poliovirus from CSF is diagnostic, although it is rarely accomplished. The MDPH State Laboratory Institute (SLI), Virus Isolation Laboratory can perform techniques to isolate enteroviruses, including poliovirus (serotypes 1, 2, and 3), echovirus, and coxsackievirus (A and B), from all of these clinical specimens. If poliovirus is isolated, further characterization can be performed at the Centers for Disease Control and Prevention (CDC) to determine if it is a vaccine or a wild-type strain.

### *Specimen Collection for Isolation*

To maximize the likelihood of isolating poliovirus, at least two stool and two throat swab specimens should be collected 24 hours apart and as early in the course of the illness as possible. Stool should be collected in a sterile

clinical cup (transport medium is not needed). Throat swabs (either Dacron or cotton-fiber) should be collected and transported in viral transport medium. Specimens should be collected as soon as possible, ideally within 14 days of the onset of symptoms. Stool specimens collected two or more months after onset of paralytic manifestations are unlikely to yield poliovirus. Sterile CSF ( $\geq 1$  mL) should also be collected, if possible.

**Clinical specimens should be sent to the SLI Virus Isolation Laboratory, at (617) 983-6382, within 24 hours of collection. If specimens cannot be sent immediately after collection, they may be stored at 4°C but should NOT be frozen. The MDPH may contact the CDC Enterovirus Laboratory, at (404) 639-2749, for consultation regarding submission of specimens for confirmatory testing.**

### *Serology*

Serologic testing for poliovirus infection should also be performed. Acute and convalescent specimens are tested for evidence of a rise in neutralizing antibodies to each of the three poliovirus serotypes. A four-fold rise in neutralizing antibody between the acute and convalescent specimens is suggestive of acute poliovirus infection. Serologic testing cannot distinguish between infection by vaccine or wild-type strains. False-negative results may occur in immunocompromised persons, who are at highest risk for paralytic disease. False-negative results may also occur because neutralizing antibodies appear early in the course of infection and may already be at high levels by the time sera are collected, and titers may not change.

### *Specimen Collection for Serology*

Three specimens should be collected serially. An acute-phase serum specimen should be obtained as early as possible in the course of illness. A convalescent-phase specimen should be obtained 3–4 weeks after the acute specimen, and if possible, a third specimen should be obtained 3–4 weeks after the second specimen. All blood specimens should be collected in red-top tubes and serum separator tubes, if possible. Specimens may be sent at room temperature or on ice to the SLI Virus Serology Laboratory, at (617) 983-6396, as a pair or separately. Specimens may be stored at 4°C once they have been serum separated. While serologic testing for poliovirus is not available at the SLI, appropriate specimens will be forwarded to the CDC for testing.

**When submitting any clinical specimens to the SLI, use the SLI *Specimen Submission Form*, which can be found at the end of this chapter or on the MDPH website at [www.mass.gov/dph/bls/generalform.pdf](http://www.mass.gov/dph/bls/generalform.pdf).**



## Section 3:

# REPORTING RESPONSIBILITIES AND CASE INVESTIGATION

## A. Purpose of Surveillance and Reporting

- ◆ To distinguish between wild-type and vaccine-associated polio, and to identify susceptible people exposed to wild-type polio.
- ◆ To maintain indigenous transmission of wild-type poliovirus at zero.

- ◆ To identify cases of vaccine-associated paralytic polio (VAPP) that might occur secondary to immunization with OPV given in another country.

## B. Laboratory and Health Care Provider Reporting Requirements

Poliomyelitis is reportable to the local board of health (LBOH). The MDPH requests that health care providers immediately report to the LBOH in the community where the case is diagnosed, all confirmed or suspect cases of poliomyelitis, as defined by the reporting criteria in Section 2A of this chapter.

**Due to the potential severity of poliomyelitis, the MDPH requests that information about any case be immediately reported by telephone (24 hours a day, 7 days a week) to a MDPH immunization epidemiologist at the MDPH Division of Epidemiology and Immunization by calling (617) 983-6800 or (888) 658-2850.**

Laboratories performing examinations on any specimens derived from Massachusetts residents that yield evidence of poliomyelitis infection shall immediately report such evidence of infection, directly by phone, to the MDPH Division of Epidemiology and Immunization at (617) 983-6800 or (888) 658-2850.

## C. Local Board of Health (LBOH) Reporting and Follow-Up Responsibilities

### *Reporting Requirements*

MDPH regulations (*105 CMR 300.000*) stipulate that poliomyelitis is reportable to the LBOH and that each LBOH must report any case of poliomyelitis or suspect case of poliomyelitis, as defined by the reporting criteria in Section 2A. Cases should be reported as soon as possible (24 hours a day, 7 days a week) to a MDPH immunization epidemiologist at the MDPH Division of Epidemiology and Immunization by calling (617) 983-6800 or (888) 658-2850. A MDPH immunization epidemiologist, in collaboration with local health personnel, will complete the MDPH *Poliomyelitis Case Report Form*. Cases will then be reported to the MDPH Bureau of Communicable Disease Control, Office of Integrated Surveillance and Informatics Services (ISIS). Refer to the *Local Board of Health Timeline* at the end of this manual's *Introduction* section for information on prioritization and timeliness requirements of reporting and case investigation.

### *Case Investigation*

Due to national surveillance and reporting requirements, the MDPH will take the lead on poliomyelitis case investigation—including filling out the official case report form—and case management recommendations, in collaboration with the LBOH. The MDPH will keep the LBOH informed of all significant developments and will request the assistance of the LBOH as needed.

In order to assess the likelihood that a suspect case is a true case prior to laboratory testing, MDPH and/or other public health staff helping in the investigation should ask about:

1. Clinical information, including pertinent laboratory results;
2. Polio immunization history of case and close contacts;
3. Pertinent medical history, including underlying illness/immunosuppression;
4. Membership in a group that might refuse immunization;

5. Country of origin and length of residence in the U.S.;
6. Recent history of travel (where and dates);
7. Whether there were any recent out-of-town visitors (from where and dates);
8. Whether the case's occupation entails handling of specimens that might contain poliovirus (e.g., laboratory work);
9. Risk factors for the disease;
10. Exposure and transmission settings (e.g., health care, childcare, school institutes, residential including correctional, group home, military, college); and
11. Laboratory information, including specimens for viral isolation and serologic testing.



## Section 4:

# CONTROLLING FURTHER SPREAD

**This section provides detailed control guidelines that are an integral part of case investigation. LBOH should familiarize themselves with the information. However, the MDPH will take the lead on implementing control measures, in collaboration with the LBOH.**

Suspect cases of polio require an immediate investigation with collection of appropriate laboratory specimens (see Section 2B). Control measures, including the orchestration of an OPV vaccination campaign, will be initiated as quickly as possible to contain further transmission. If circulation of poliovirus is suspected, an active search for other cases that might have been misdiagnosed (e.g., Guillain-Barré Syndrome, polyneuritis, transverse myelitis) will be initiated. If evidence suggests that disease is related to receipt of OPV, no control measures are necessary because live, attenuated poliovirus vaccine strains have not been documented to cause outbreaks.

## A. Isolation and Quarantine Requirements (105 CMR 300.200)

### *Minimum Period of Isolation of Patient*

Standard and contact precautions for six weeks after onset of symptoms or until poliovirus can no longer be recovered from feces (the number of negative specimens needed will be determined by the MDPH on a case-by-case basis).

### *Minimum Period of Quarantine of Contacts*

According to MDPH guidelines, administer an appropriate preparation of poliovirus vaccine if the immune status is unknown or incomplete. Otherwise, no restrictions.

## B. Protection of Contacts of a Case

1. Implement control measures as described below before laboratory confirmation. While indigenous transmission of wild-type poliovirus in the U.S. (and the Western Hemisphere as a whole) has not occurred since 1991, the importation of poliovirus from polio-endemic regions may occur among under-immunized tourists, immigrants revisiting their countries of origin, or members of groups who might refuse immunization, regardless of travel history. Polio-endemic regions include some countries in Africa and Asia. A MDPH epidemiologist (at [617] 983-6800 or [888] 658-2850) can help assess the likelihood of exposure to wild-type polio.



OPV is still being used outside of the U.S. Vaccine-associated paralytic poliomyelitis (VAPP) should be considered as a cause of paralysis, especially if a patient has onset of paralysis after receipt of a first dose of OPV. No control measures are indicated if the case is determined to be likely VAPP. It is also possible that the case of paralysis is due to an infectious agent other than poliovirus, such as another enterovirus, or due to some other non-infectious cause, and therefore not contagious. Consequently, it is crucial that laboratory testing be initiated to determine if the causative agent of paralysis is poliovirus and to differentiate wild-type from vaccine strain poliovirus.

2. Identify individuals or groups who may have been exposed to the case. Also, attempt to identify the route of introduction of poliovirus into the community. To identify these groups, think in terms of “zones of exposure,” and consider members of the following groups:
  - ◆ Household members,
  - ◆ School/daycare associates (students/attendees and staff),
  - ◆ Staff and patients at medical facility where patient was cared for, especially if there was the potential for direct contact with feces or oral secretions,
  - ◆ Religious/social groups,
  - ◆ Sports teams and other extracurricular groups,
  - ◆ Busmates,
  - ◆ Close friends,
  - ◆ Travelers from polio-endemic regions such as Africa, Asia, the Middle East, and Eastern Europe, and
  - ◆ Any other persons who may have come in direct contact with the case’s feces or oral secretions.
3. Identify high-risk susceptibles who had contact with the case during the infectious period.
  - ◆ Pregnant women should be referred to their obstetricians. (In daycare or school settings, remember to determine whether teachers, student-teachers, staff, or students are pregnant.)
  - ◆ Immunocompromised individuals should be referred to their health care providers.
  - ◆ Infants <6 weeks of age (who are too young to have been vaccinated) should be referred to their pediatricians.
  - ◆ Members of communities who tend to refuse immunization.
4. Identify and vaccinate all other susceptibles  $\geq 6$  weeks of age with IPV (if not contraindicated). These are individuals without proof of immunity, including those with medical or religious exemptions to immunization. Proof of immunity to poliovirus is defined as:
  - ◆ For children (<18 years of age): Documentation of receipt of  $\geq 4$  doses of polio vaccine with a minimum interval of 4 weeks between doses; only 3 doses are needed when the 3<sup>rd</sup> dose is given on or after the 4<sup>th</sup> birthday.
  - ◆ For adults ( $\geq 18$  years of age): Documentation of receipt of  $\geq 3$  doses of polio vaccine with a minimum interval of 4 weeks between doses with documentation of  $\geq 1$  booster dose.
  - ◆ Anyone with an incomplete series should receive one dose of polio vaccine (and should be scheduled to receive additional doses, if necessary).

- ◆ Remember that an individual who has received a primary series consisting of more than three doses of vaccine AND has received  $\geq 1$  booster dose does NOT need to receive any additional doses.

Vaccinating an exposed individual who may be incubating poliovirus is not harmful. Immune globulin (IG) has been found to be of no value as post-exposure prophylaxis and is not recommended.

**If the use of OPV for a mass vaccination campaign to control a polio outbreak in the U.S. is indicated, the CDC will advise the MDPH on how to obtain an emergency supply of OPV, who should receive OPV, and any other pertinent control measures.**

5. Apply precautions and isolate/exclude as follows:

- ◆ Case: Place on standard and contact precautions, and exclude for six weeks after onset or until virus can no longer be recovered from feces (the number of negative specimens needed will be determined by the MDPH on a case-by-case basis).
- ◆ Contacts: Administer IPV if needed; no need for exclusion.

6. Surveillance

Active surveillance for AFP and other symptoms of polio infection should continue for at least two incubation periods (i.e., up to 70 days) beyond the onset of the last case in an area.

**Vaccination, including routine childhood vaccination, catch-up vaccination of adolescents, and targeted vaccination of high-risk adult groups, is the best preventive measure against polio. Good personal hygiene (particularly proper hand washing) is also very important.**

## C. Preventive Measures

### *Routine Polio Childhood Immunization Recommendations*

An all-IPV polio immunization schedule is now the recommended schedule. OPV is no longer recommended and is not available for routine immunization in the U.S. Four doses of IPV are usually needed to complete the primary series: doses are recommended at ages 2 months, 4 months, 6–18 months, and 4–6 years. At least 28 days are needed between doses, although a 6–8 week interval is preferred between doses 2 and 3 and a 6-month interval is preferred between doses 3 and 4. Only three doses are needed when the third dose is given on or after the fourth birthday. Polio vaccine is not routinely recommended for those  $\geq 18$  years, unless there is potential for exposure.

### *Polio Vaccine and Adults*

Routine vaccination of persons  $\geq 18$  years of age residing in the U.S. is not necessary. However, polio vaccination is indicated for the following groups:

- ◆ Laboratory workers who handle poliovirus,
- ◆ Health care workers caring for polio patients, and
- ◆ Persons traveling to regions of the world where polio is endemic or epidemic.



### *Polio Vaccination and Travel*

In assessing the risk to a traveler for polio transmission, health care providers are urged to determine first if their patients will truly be traveling to a polio endemic or epidemic area, including Africa or the Middle East. Information on the risk of transmission of poliovirus in specific countries is available on the CDC website at [www.cdc.gov/travel](http://www.cdc.gov/travel) or by calling the CDC's Traveler's Health Office at (877) 394-8747. In addition, a MDPH Division of Epidemiology and Immunization epidemiologist can be reached at (617) 983-6800 or (888) 658-2850 to help make this determination.

If travel to a polio-endemic or epidemic region is anticipated, please review the patient's history of polio immunization. Ninety percent or more of vaccine recipients develop protective immunity to all three poliovirus types after two doses, and at least 99% are immune following three doses.

If the patient has received a complete primary series of  $\geq 3$  doses of polio vaccine, administer a booster dose of IPV. Remember, a single booster dose is all that is needed.

If the patient is unimmunized or partially immunized, follow an accelerated schedule to complete as much of the series as possible before departure, as outlined in the table below:

Weeks Available	Accelerated IPV Schedule*
$\geq 8$ weeks	3 doses, given 4 weeks apart
4–7 weeks	2 doses, given 4 weeks apart
<4 weeks	1 dose

\*First dose may be given as early as six weeks of age.

### *Education*

Please refer to *References* section below, the most current versions of the MDPH's *Immunization Guidelines*, the MDPH's *Model Standing Orders for Polio Vaccine*, and *Massachusetts Immunization Program State-Supplied Vaccines and Patient Eligibility Criteria*, for recommended schedules, groups recommended, and groups eligible to receive state-supplied vaccine. These, as well as other relevant resources, are available through the MDPH Division of Epidemiology and Immunization, at (617) 983-6800 or (888) 658-2850, and on the MDPH website at [www.mass.gov/dph/cdc/epii/imm/imm.htm#mso](http://www.mass.gov/dph/cdc/epii/imm/imm.htm#mso).



## ADDITIONAL INFORMATION

The following is the formal CDC surveillance case definition for polio. It is provided for your information only and should not affect the investigation and reporting of a case that fulfills the criteria in Section 2A of this chapter. (The CDC and the MDPH use the CDC case definitions to maintain uniform standards for national reporting.) For reporting to the MDPH, always use the criteria outlined in Section 2A.

*Note: The most up-to-date CDC case definitions are available on the CDC website at [www.cdc.gov/epo/dphsi/casedef/case\\_definitions.htm](http://www.cdc.gov/epo/dphsi/casedef/case_definitions.htm).*

## Clinical Case Definition

Acute onset of a flaccid paralysis of one or more limbs, with decreased or absent tendon reflexes in the affected limbs, without other apparent cause and without sensory or cognitive loss.

## Case Classification

<b>Probable</b>	A case that meets the clinical case definition.
<b>Confirmed</b>	A case that meets the clinical case definition and in which the patient has a neurologic deficit 60 days after onset of initial symptoms, the patient has died, or the patient has unknown follow-up status.



## REFERENCES

- American Academy of Pediatrics. [Poliovirus Infections.] In: Pickering, L.K., ed. *Red Book 2003: Report of the Committee on Infectious Diseases, 26<sup>th</sup> Edition*. Elk Grove Village, IL, American Academy of Pediatrics; 2003: 505–509.
- Centers for Disease Control and Prevention (CDC). Case Definitions for Infectious Conditions Under Public Health Surveillance. *MMWR*. May 2, 1997; 46(RR-10).
- CDC. *Epidemiology & Prevention of Vaccine-Preventable Diseases: The Pink Book, 8<sup>th</sup> Edition*. CDC, January 2004.
- CDC. *Manual for the Surveillance of Vaccine-Preventable Diseases*. CDC, 2002.
- CDC. Poliomyelitis Prevention in the U.S.: Updated Recommendation of the Advisory Committee on Immunization Practices (ACIP). *MMWR*. May 19, 2000; 49(RR-5).
- CDC. Public Health Dispatch: Outbreak of Poliomyelitis—Dominican Republic and Haiti, 2000. *MMWR*. 2000; 49: 1094–1095.
- Heymann, D.L. ed. *Control of Communicable Diseases Manual, 18<sup>th</sup> Edition*. Washington, DC, American Public Health Association, 2004.
- MDPH. *The Comprehensive School Health Manual*. MDPH, 2005.
- MDPH. *Recommended Childhood Immunization Schedule*. MDPH, 2005.
- MDPH. *Regulation 105 CMR 300.000: Reportable Diseases, Surveillance, and Isolation and Quarantine Requirements*. MDPH, Promulgated November 4, 2005.



## **FORMS & WORKSHEETS**

### *Poliomyelitis*

*(Also known as Polio, Polioviral Fever,  
and Infantile Paralysis)*

# Poliomyelitis

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## LBOH Action Steps

*This form does not need to be submitted to the MDPH with the case report form. It is for LBOH use and is meant as a quick-reference guide to polio case investigation activities.*

LBOH staff should follow these steps when polio is suspected or confirmed in the community. For more detailed information, including disease epidemiology, reporting, case investigation, and follow-up, refer to the preceding chapter.

*Note: Due to national surveillance and reporting requirements, the MDPH will usually take the lead on polio case investigation (including filling out the official case report form) and disease control recommendations, in collaboration with the LBOH. MDPH epidemiologists will keep the LBOH informed of all significant developments and will request the assistance of the LBOH as needed.*

### Reporting

- ☐ Immediately notify the MDPH Division of Epidemiology and Immunization, at (617) 983-6800 or (888) 658-2850, to report any confirmed or suspect case(s) of polio.

### Case Investigation

- ☐ Work with MDPH to ensure that appropriate clinical specimens are collected and submitted to the SLI for confirmation.
- ☐ Work with MDPH to obtain the information necessary for completion of the MDPH *Poliomyelitis Case Report Form*, including source of exposure, clinical information, vaccination history, laboratory results, and source of infection. (MDPH will complete the form and submit to the MDPH Bureau of Communicable Disease Control, Office of Integrated Surveillance and Informatics Services [ISIS].)

### Prevention and Control

- ☐ Work with MDPH to institute isolation and quarantine requirements (*105 CMR 300.200*) and other control measures, as they apply to a particular case.
- ☐ Identify high-risk or susceptible individuals, including those with medical or religious exemptions in exposed group.
- ☐ Vaccinate susceptible individuals with IPV (if not contraindicated).
- ☐ Conduct surveillance for two incubation periods.

## **Managing Polio in Schools and Other Institutions**

In addition to the prevention and control measures described above:

- ☐ Notify and educate staff, students, and/or patients.
- ☐ Test and exclude symptomatic individuals.

## **Managing Polio in Health Care Settings**

In addition to the prevention and control measures described above:

- ☐ Notify infection control or employee health of confirmed or suspect case(s) in institution.
- ☐ Ensure all health care personnel have proof of immunity appropriate for health care setting.